

What Is Claimed Is:

1. A mouse cable rewind apparatus comprising:

a) an upper cover formed in concave oval shape and having at its rear side a receiving groove with a single opening, a shaft socket being disposed at the center of the

5 receiving groove, an engaging groove being formed at the opening of the receiving groove while a tube-shaped regulating seat is slightly spaced apart from the engaging slot, the rear semicircular wall of the regulating seat extending upwards, thereby forming two counteracting parts at its both sides, respectively, an upright post being disposed at the center of the semicircular wall of the regulating seat so as to allow the

10 attachment of a regulating member with its regulating tube to the regulating seat, the regulating member acting as a hook body in an irregular shape and having two resilient pieces disposed on both sides of the basis of the regulating tube, the center of the regulating member being bored with an oval tooth hole having two raised insertion hooks at both sides thereof, an engaging protrusion extending forwards from the front 15 part of the regulating member;

b) a support plate having a rotating shaft standing uprightly at the center thereof, a laying plate being raised at a certain height from one side of the support plate and converging in radial direction into a semicircular end, the laying plate having a positioning post at the center thereof so as to allow the attachment of a tooth seat to the laying plate and

20 further having a regulating hole near the positioning post, a laying base with a semicircular spring post being raised at a higher place than the laying plate, the tooth seat being formed as a cylindrical body and having six evenly spaced lower blade teeth on which three evenly spaced upper taper teeth lie, the tooth seat being bored with a tooth seat hole at the center of the bottom thereof;

- c) an upper winding disc having an upper protrusion ring concentrically positioned on the surface thereof, a spring hole being formed in the wall of the upper protrusion ring, the flat surface of the upper winding disc being bored with a shaft hole within the upper protrusion ring, the upper winding disc further having two opposing engaging grooves at the rim of the flat surface thereof, an insertion protrusion being positioned on the reverse side of the upper winding disc and near the shaft hole of the flat surface so that a spring with its hook end is able to be hooked into the spring hole and, after being wound around the upper protrusion ring, the remaining spring is fitted over the spring post of the support plate;
- 10 d) a lower winding disc having a round tube extending upwardly from the center of a flat surface thereof, the round tube having a shaft hole that is extended into the flat surface a semicircular protrusion with an insertion hole at the center thereof being fitted at the rim of the round tube, the lower winding disc further having a lower protrusion ring and a cable inserting gap on the back side thereof, a cable clamping groove being formed within the lower protrusion ring; and
- 15 e) a lower cover attached to the upper cover for creating an isolation room;
whereby the upper winding disc with its shaft hole is attached downwardly onto the round tube of the lower winding disc so as to allow the insertion of the insertion protrusion of the upper winding disc into the insertion hole of the semicircular protrusion, thereby fixing the upper and lower winding discs in place; thereafter, a signal cable extends through the cable inserting gap of the lower winding disc over a certain length with one end fixed on the semicircular protrusion of the lower winding disc for winding around the round tube and the semicircular protrusion and then being spot-welded to a circuit board and with the other end clamped into the cable clamping groove for winding around the

lower protrusion ring so that the assembly of the upper and lower winding discs is then mounted on the rotating shaft of the support plate; meanwhile, both inserting hooks of the regulating member of the upper cover are engaged just into the upper taper teeth of the tooth seat so that a convenient use is achieved by means of the resilience of the spring and
5 the regulation between the regulating member and the tooth seat.

2. The mouse cable rewind apparatus of claim 1 wherein a protection disc is fitted between the upper winding disc and includes a shaft hole at the center thereof for mounting the protection disc onto the rotating shaft of the support plate and wherein the
10 protection disc lies on the upper winding disc for preventing its components from scatteration.

3. The mouse cable rewind apparatus of claim 1 wherein an end stop is located at the place where the semicircular wall of the regulating seat leads into the opening, and
15 wherein, at the same side of the end stop, a partition is provided in the front part of the upper cover, and wherein the partition is separated from the end stop by an engaging slot, and wherein an elongated groove is formed between the partition and the side wall of the upper cover, and wherein two engaging pieces are insertable into the engaging slots, respectively, for receiving the cable head,

20

4. The mouse cable rewind apparatus of claim 1 wherein a sleeve is so constructed that it can be mounted between the spring post and the spring for reducing the wearing action on the spring.

5. The mouse cable rewind apparatus of claim 1, wherein a plurality of evenly spaced engagement pieces are extended from the outer rim of the support plate for engaging into the engaging groove of the upper cover in place.